

# **Norstar Voice Mail 4.0 FAX Set Up and Operation Guide**

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## Introduction

This guide is intended to lead a System Coordinator through the Norstar Voice Mail FAX set up, and continue as an ongoing reference aid.

This chapter tells you what to expect as you read this guide, and how information is presented.

## How this guide is organized

The *Norstar Voice Mail FAX Set Up and Operation Guide* is organized according to chapters that cover:

**How to use this guide** – provides a brief overview identifying the organization of this guide and the conventions used for set up and operation tasks.

**Learning about FAX** – provides an overview of how FAX works and explains common features.

**Setting up and maintaining FAX** – provides the necessary information to set up and maintain FAX.

**Setting up and maintaining Fax-on-demand mailboxes** - provides the information necessary to set up and maintain Fax-on-demand mailboxes.

**Troubleshooting FAX** – provides diagnostic and recovery procedures for problems that might occur while setting up and operating FAX. This chapter also provides a list of error messages that might appear when using FAX.

**Examples and Tips** - provides examples of the different fax features and tips for using FAX.

**Appendix A: FAX Programming Record** - provides a programming record to keep track of FAX set up information.

**Appendix B: Dialing Translation** - provides information on setting up the Dialing Translation Table and setting the Dialing Translation Parameters.

**Appendix C: Technical content of a loadable .PCX file** - shows the required content of the file header when loading a .PCX Fax message from a disk.

**Glossary** – Defines the terms used in this guide

**Index** – provides an alphabetical list of information topics contained in this guide and the page number of where the information is located. If you cannot find a term, try looking according to its task.

## Conventions

As you work with this guide, you will notice that conventions are used to represent the words that appear on the Norstar two-line display telephone.

### Display command line text

Any word or prompt that is part of the first line of the display appears in a different text.

Example: P`s`wd:

When you see a word in a different text, it represents the action you must take to proceed.

### Display button options text

Words in the second line of the display appear in an underlined text.

Example: Press MBOX.

When you see an underlined word, you can press the button directly below the option on the display.

### Buttons

This guide uses dialpad button representations. Any button that appears in the text or instruction steps indicates the dialpad button that selects an option.

Example: Press .

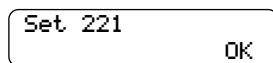
When you see a dialpad button, it represents the button you must press to proceed.

**Note:** For more information about Norstar Voice Mail and using the Norstar two-line display telephone, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## What appears on the display

The telephone displays shown throughout this guide use Norstar Voice Mail default settings and sample names.

Example:



This display shows an example of the Norstar Voice Mail Directory Number (DN).

## Prerequisites

Before you attempt to set up FAX, ensure you are familiar with how Norstar two-line display telephones operate. Read your Norstar telephone user cards before proceeding.

You must also have a good working knowledge of Norstar Voice Mail and Custom Call Routing. This guide assumes you know how to operate the different Norstar Voice Mail Feature Codes, are aware of Norstar Voice Mail programming, and know the Norstar Voice Mail terminology.

## **Other documents**

For more information about FAX or Norstar Voice Mail, refer to the:

- *Norstar Voice Mail FAX Installation Guide*
- *Norstar Voice Mail FAX User Guide*
- *Norstar Voice Mail Programming Record*
- *Norstar Voice Mail Set Up and Operation Guide*
- *Norstar Voice Mail Reference Guide*
- *Norstar Voice Mail User Guide*
- *Norstar Voice Mail Software Installation Guide*



## Introduction

Norstar Voice Mail is a fully automated receptionist service that offers call routing and message taking services. FAX works with Norstar Voice Mail to provide incoming and outgoing fax capability. This chapter describes how FAX works and explains:

- How FAX works
- Who can use FAX
- About Fax Mail
- Message Notification
- About the Virtual fax line
- About Fax-on-demand
- About Fax Answering
- About Fax Overflow
- Fax System Group message (Fax Broadcast)
- About FAX with CCR
- About Norstar Voice Mail reports

## How FAX works

FAX works with Norstar Voice Mail, offering a caller the capability of sending a Fax message to a mailbox as easily as sending a voice message to a mailbox. A caller can also access a mailbox to retrieve a Fax message.

## Who can use FAX

FAX can be used by any outside caller or by mailbox owners in your company. Away from the office, FAX can be used with any touchtone telephone. At your office, FAX can be used from any Norstar or touchtone telephone connected to your Norstar system. When using FAX from a Norstar or touchtone telephone, you must first enter a Feature Code. No Feature Code is required when using Fax-on-demand.

Callers using a rotary dial telephone cannot access FAX.

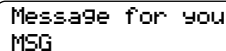
## About Fax Mail

A fax document in a mailbox (with or without a voice introduction) is called a Fax message. Fax messages can be either voice introduced or non-voice introduced. This means the caller can leave a Fax message in a mailbox with or without an introductory message. The Fax message can later be retrieved by the mailbox owner and printed on a fax machine.

An average Fax message, consisting of text only, uses 10 seconds of mailbox message time per page. A Fax message that contains a graphic can use as much as two minutes of mailbox message time per page. After a Fax message has been printed or forwarded, it should be deleted from the mailbox.

## Message Notification

Norstar Voice Mail will notify you when you have received a voice message or a Fax message. When someone sends a Fax message to your mailbox, your telephone display shows:



Message for you  
MSG

This message indicates that you have received either a voice message or a Fax message. When you open your mailbox, the telephone display will show you the number of new and saved messages. A voice prompt will inform you of the number of new and saved Fax messages.

## About the Virtual fax line

A line can be assigned to a mailbox to act as a Virtual fax line for the mailbox. Any Fax messages sent to the Virtual fax line bypass the greeting and Automated Attendant, and receive a fax tone. The Fax message is immediately sent to your mailbox. When “*Message for you*” appears on the display, the mailbox owner can open their mailbox and access both voice and Fax messages. For more information about accessing and printing Fax messages, refer to the *Norstar Voice Mail FAX User Guide*.

The corresponding seven digit telephone number associated with the Virtual fax line must be given to the mailbox owner. The mailbox owner can then advise people of the fax number. For example, if line 20 was chosen as fax line, the corresponding telephone number of 735-5822 would be given to the mailbox owner.

If the line being used for the Virtual fax line is either a Direct Inward Dial (DID) or a Target Line, two callers can send a fax to the same fax line at the same time. The resulting two Fax messages both end up in the mailbox. If a third caller attempts to send a fax to the Virtual fax line and the line is busy, the resulting Fax message will be delivered to the General Delivery mailbox. For more information on Fax Overflow for a fax line, refer to *Norstar Voice Mail Set Up and Operation Guide*.

To add a fax line to an existing mailbox, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## About Fax-on-demand

The Fax-on-demand feature allows a caller to retrieve documents that are stored in Norstar Voice Mail. These documents must be stored in special mailboxes called Fax-on-demand Mailboxes.

A Fax-on-demand Mailbox contains a greeting and the documents you have stored. Documents stored in a Fax-on-demand Mailbox can be printed on any fax machine.

### Call methods

There are two call methods used with Fax-on-demand Mailboxes:

- one-call
- two-call

When a caller requests a fax from the Fax-on-demand Mailbox using the one-call method, the document is transmitted during the original call. Therefore, a caller must use the telephone at the fax machine to call the one-call Fax-on-demand Mailbox. With this type of call method, the external caller pays for any long distance toll charges incurred.

When a caller requests a fax from the Fax-on-demand Mailbox using the two-call method, the document is transmitted during the second call. The first call can originate from any touchtone telephone. The caller provides a telephone number where the information is to be delivered. The document can be sent to any fax machine. With this type of call method, the Fax-on-demand mailbox owner pays for any toll charges incurred.

**Note:** In order for the Fax-on-demand two-call method to function properly, the Dialing Translation Table must be created and all the Dialing Translation Parameters must be set. Refer to "[Appendix B: Dialing Translation](#)" on page 57.

## About Fax Answering

Fax Answering allows a caller to use the autosend feature on their fax machine to send faxes to the Norstar Voice Mail system. The Norstar Voice Mail Automated Attendant recognizes the fax tone and automatically sends the Fax message to a predefined fax machine for printing.

The fax machine extension can be set up with a Fax Overflow Mailbox for improved performance. However, if the fax machine extension is not equipped with a Fax Overflow Mailbox and the fax machine extension rings busy or does not answer the incoming call, the fax call will be terminated.

## About Fax Overflow

A Fax Overflow mailbox is a mailbox for your fax machine. If the fax machine cannot answer an incoming fax call, Norstar Voice Mail answers the call and temporarily stores the Fax messages in the Fax Overflow mailbox. Later, when the fax machine is ready to print, Norstar Voice Mail will send the stored Fax messages to the fax machine.

If Norstar Voice Mail cannot send the Fax messages on the first attempt, it will attempt to send the documents several more times. The number of times Norstar Voice Mail will attempt to send the Fax message is called the retry attempts. The number of retry attempts can be any number between one and 99. Between each of these retries, Norstar Voice Mail will wait a specified amount of time called the retry interval. The retry interval can be from one to 60 minutes.

A Fax Overflow mailbox may be assigned to any Norstar port to which a fax machine is connected.

## Fax System Group message (Fax Broadcast)

A Fax System Group message can be sent whenever you want to notify a group, by way of a fax, of a pending event or company notice that only pertains to that group.

A Fax System Group List is a collection of fax machines from other locations. When you send a Fax message to a Fax System Group List, each fax machine in the Fax System Group List receives the same Fax message. You should publish a list of fax machines in each Fax System Group List. Each mailbox owner will then know which fax machines will receive the Fax System Group message.

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## About FAX with CCR

Fax-on-demand can be used with Custom Call Routing (CCR) Trees. The Fax-on-demand functionality can be added to the CCR Tree by assigning the appropriate mailbox to a CCR Point.

You can assign a Personal mailbox to a Leave Message Point. Incoming callers can then leave Fax messages in this Personal mailbox.

To use Fax-on-demand, add a Fax Point to the CCR Tree and then assign a Fax-on-demand Mailbox to that Point. An incoming caller can then retrieve documents from this Point.

## About Norstar Voice Mail reports

Norstar Voice Mail reports are available to view and verify Norstar Voice Mail set up information. All dates will be shown with the four-digit year format, yyyy/mm/dd. Four Norstar Voice Mail reports show FAX information:

- **Directory report:** This report shows the mailbox owners listed in the Company Directory. This report provides the mailbox owner's name, mailbox number, type of mailbox, extension, whether or not mailbox owners recorded their name in the Company Directory, and if they have a greeting recorded for their mailbox. Use this report to identify which mailboxes are assigned as Fax-on-demand.
- **Group List report:** This report shows the Group List number, the type of Group List, and the Group List name. For Voice Group Lists, the mailbox numbers included in the Group List, the mailbox owner's name and the type of mailbox are also shown. For Fax Group Lists, the name of each recipient, the route type (line or pool), and the fax number are also shown. Use this report to identify the Fax Group Lists.
- **Custom Call Routing Tree report:** This report shows the CCR Tree number, the current date, the last date changes were made, and the Tree status. The report also shows the Points on the Tree, assignments made to the Points, and any areas that need administering. Use this report to identify which points are Fax-on-demand Mailboxes.
- **Fax-on-demand Usage report:** This report lists all the Fax-on-demand requests, shows the date and time that an item was requested, the delivery fax number and the Caller ID of the caller. Use this report to identify which mailboxes are assigned as Fax-on-demand.

You must have a printer connected to Norstar Voice Mail to produce reports. For more information about Norstar Voice Mail reports, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Introduction

As System Coordinator you perform all the tasks necessary for setting up and maintaining FAX. This chapter describes these tasks. Setting up and maintaining FAX involves:

- Entering characters using the Norstar Dialpad
- Setting the FAX System parameters
- Changing the FAX System parameters
- Adding a Fax Overflow Mailbox
- Changing the Fax Overflow Mailbox parameters
- Deleting a Fax Overflow Mailbox
- Adding a Fax System Group List
- Adding fax machine members to a Fax System Group List
- Sending a Fax System Group message (Fax Broadcast)

Before you begin administering FAX, you should complete the *Norstar Voice Mail FAX Programming Record*. This will help you collect and organize all the information you will need to administer FAX.

A *Norstar Voice Mail FAX Programming Record* is included in Appendix A of this guide. Make a photocopy of this *Norstar Voice Mail FAX Programming Record* before you enter any information.

**Note:** To administer FAX in your company, you require a Norstar two-line display telephone. You cannot administer FAX from a Norstar single-line display telephone.

## Entering characters using the Norstar Dialpad

You will enter characters on your Norstar dialpad to add the Fax Answering extension name, the Fax-on-demand mailbox name, the Fax Overflow Mailbox name, and a new member's name to a Fax System Group List.

The first time a numeric key is pressed, the Norstar set displays the first assigned letter. A second press of the same key changes the displayed letter to the second letter, and so on, cycling around to the first letter. To accept the displayed letter, you press either **#** or the next key. If you press a different key, the cursor is advanced and the display shows the first character on the new key. Pressing **BKSP** erases the most recently entered character, moving the cursor position to the left.

The table Entering characters using the Norstar dialpad shows the characters associated with the numbers on the Norstar dialpad.

### Entering characters using the Norstar dialpad

<b>1</b> 1 - '	<b>2</b> A B C 2 a b c	<b>3</b> D E F 3 d e f
<b>4</b> G H I 4 g h i	<b>5</b> J K L 5 j k l	<b>6</b> M N O 6 m n o
<b>7</b> P R S 7 p r s	<b>8</b> T U V 8 t u v	<b>9</b> W X Y 9 w x y
<b>*</b> quit	<b>0</b> Q Z zero q z	<b>#</b> accepts letter
<b>#</b> <b>#</b> enters a comma		

## Setting the FAX System parameters

There are four FAX System parameters that control various FAX features and user mailbox functions. Setting up the FAX System Parameters includes:

- setting up the FAX Answering extension
- assigning a FAX System Station Identification name
- setting the FAX System retry attempts
- setting the FAX System retry interval time

### Setting up the FAX Answering extension

This feature allows a caller to use the autosend feature on their fax machine to send faxes to the Norstar Voice Mail system. The Norstar Voice Mail Automated Attendant recognizes the fax tone and automatically sends the Fax messages to the FAX Answering extension fax machine for printing. The Fax Answering extension must be a valid Norstar DN. The FAX Answering extension is empty by default.

**Note:** The FAX Answering extension fax machine must be connected to an Analog Terminal Adapter (ATA).

### Assigning a FAX System Station Identification name

The FAX System Station Identification name is a text name that can be up to 16 characters. The FAX System Station Identification name can be a company name, a department, a location, number, or any other name. The name is transmitted to external fax machines at the beginning of all Fax messages. The FAX System Station Identification name will also be printed in the fax machine's log files. The FAX System Station Identification name is empty by default.

### Setting the FAX System retry attempts

The FAX System retry attempts is the number of times that the System will attempt to print faxes from mailboxes. Also, it is the number of times the System will attempt to deliver faxes that have been forwarded to an external fax machine. The retry attempts range from 1 to 99. The FAX System retry attempts is set to 3 by default.

### Setting the FAX System retry interval time

The FAX System retry interval time is the number of minutes that the system waits between retry attempts. The retry intervals range from 1 to 60 minutes. The FAX System retry interval time is 10 minutes by default.

All the FAX System parameters can be set in one Norstar Voice Mail programming FAX session.

To set the FAX System parameters:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press OTHR until you see the display in step 4.

```
Admin
FAX   NET
```

4. Press FAX.

```
Fax Admin
PARM  LOAD
```

5. Press PARM.

```
Fax ext: none
CHNG  NEXT
```

6. Press CHNG.



Ext:  
RETRY                      QUIT

7. Enter the Fax Answering extension number. The Fax Answering extension must be a valid Norstar DN. The Fax Answering extension can be set up with a Fax Overflow Mailbox for improved performance. Refer to ["Adding a Fax Overflow Mailbox"](#) on page 16.

**Note:** The call is disconnected if the Fax Answering extension rings busy, does not answer the incoming call, or is not equipped with a Fax Overflow Mailbox.

Fax ext:   xxxx  
CHNG                      NEXT

8. Press NEXT.

Fax name: none  
CHNG                      NEXT

9. Press CHNG.

Name:  
RETRY   BKSP              OK

10. Enter the Fax Answering extension name and press OK. To enter the Fax Answering extension name, refer to ["Entering characters using the Norstar Dialpad"](#) on page 12. The Fax Answering extension name can be a maximum of 16 characters.

xxxx  
CHNG                      NEXT

11. Press NEXT.

Retries: 3  
CHNG                      NEXT

12. Press CHNG.

Retries:  
CHNG                      OK

13. Enter the number of retries and press OK.

The default number of retries is 3. The number of retries ranges from 01 to 99.

Retries: xx  
CHNG                      NEXT

14. Press NEXT.

Interval: 10  
CHNG                      OK

15. Press CHNG.

Interval:  
RETRY                      OK

16. Enter the retry interval time and press OK.

The default retry interval time is 10 minutes. This is a two-digit field. The retry interval time is a value between 01 and 60 minutes.

Interval: 9  
CHNG                      OK

17. Press OK to accept the retry interval time.

18. Press **[Rls]** to end this programming session.

Each time a Fax message's retry limit is reached, Norstar Voice Mail stops attempting to send the message and a non-delivery alarm message is generated. The messages that failed to be sent are shown in the non-delivery alarm message. The alarms will continue until the problem has been solved. Most delivery alarms are caused by fax machine problems such as a paper jam or the fax machine running out of paper.

## Changing the FAX System parameters

You can change any of the FAX System parameters at any time. The FAX System parameters appear in the same order as they appeared when you set up the FAX System parameters. This section shows you how to select the change feature. It does not show you how to change each parameter.

To change the FAX System parameters:

1. Press **[Feature]** **[9]** **[8]** **[3]**.

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press **OK**.

```
Admin
MBOX  AA  OTHR
```

3. Press **OTHR** until you see the display in step 4.

```
Admin
FAX   NET
```

4. Press **FAX**.

```
Fax Admin
PARM  LOAD
```

5. Press **PARM**.

```
Fax Ext:  xxxx
CHNG    NEXT
```

6. To locate the parameter you wish to change, press **NEXT** until the display with the parameter appears. To change the parameter, press **CHNG** and enter the new parameter value.

7. Press **[Rls]** to end this programming session.

## Adding a Fax Overflow Mailbox

A Fax Overflow Mailbox is a mailbox for your fax machine. If the fax machine cannot answer the incoming fax call, the call is answered by Norstar Voice Mail. The Fax messages received are stored in the Fax Overflow Mailbox. When the fax machine is ready to accept fax calls, Norstar Voice Mail will send the stored Fax messages to the fax machine. A Fax Overflow Mailbox should be added to each fax machine connected to the Norstar system.

To add a Fax Overflow Mailbox:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press MBOX.

```
Mailbox Admin
ADD   DEL  CHNG
```

4. Press ADD.

```
Mbox:
RETRY          QUIT
```

5. Enter the Fax Overflow Mailbox number.

```
Type: subscriber
NEXT          OK
```

6. Press NEXT until you see the display in step 7.

```
Type: fax-overflo
NEXT          OK
```

7. Press OK.

```
Ext:
RETRY          QUIT
```

8. Enter the Fax Overflow Mailbox extension number.

```
Name:
RETRY  BKSP  OK
```

9. Enter the Fax Overflow Mailbox name and press OK. To enter the Fax Overflow Mailbox name, refer to ["Entering characters using the Norstar Dialpad"](#) on page 12. The Fax Overflow Mailbox name is a maximum of 16 characters.

```
Retries: 99
CHNG          NEXT
```

10. Press CHNG.

```
Retries:
RETRY          OK
```

11. Enter the number of retries.

The default number of retries is 99. The number of retries ranges from one to 99.

```
Retries: 99
CHNG          NEXT
```

12. Press NEXT.

Interval:1  
CHNG OK

13. Press CHNG.

Interval:  
RETRY OK

14. Enter the retry interval time and press OK.

The default retry interval time is 1 minute. This is a two-digit field. The retry interval time is a value between one and 60 minutes.

Interval:3  
CHNG OK

15. Press OK.

Repeat these steps for each new Fax Overflow Mailbox you want to add.

16. Press Rls to end this programming session.

When the retry limit is reached for a Fax message, the message is automatically sent to the General Delivery Mailbox. The System Coordinator can then open the General Delivery Mailbox and forward the Fax messages to a fax machine connected to the Norstar system. The System Coordinator should check the General Delivery mailbox on a regular basis.

Off-premise Message Notification can be set up to notify the System Coordinator when a message has been received in the General Delivery Mailbox. For more information about the General Delivery Mailbox, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Changing the Fax Overflow Mailbox parameters

You can change any parameter assigned to a Fax Overflow Mailbox. This does not include the mailbox number. If you need to change a mailbox number, you must first delete the mailbox and then add the new Fax Overflow Mailbox. For instructions about adding a mailbox, refer to ["Adding a Fax Overflow Mailbox"](#) on page 16. For instructions about deleting a mailbox, refer to ["Deleting a Fax Overflow Mailbox"](#) on page 19.

The Fax Overflow Mailbox parameters appear in the same order as they appear when you add a Fax Overflow Mailbox. This section shows you how to select the change feature. It does not show you how to change each parameter.

Changing the parameters of a Fax Overflow Mailbox involve:

- locating the display with the parameter you want to change
- pressing **CHNG**
- entering the new parameter value

To change the parameters of a Fax Overflow Mailbox:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press **OK**.

```
Admin
MBOX  AA  OTHR
```

3. Press **MBOX**.

```
Mailbox Admin
ADD    DEL  CHNG
```

4. Press **CHNG**.

```
Mbox:
DIR          QUIT
```

5. Enter the Fax Overflow Mailbox number.

```
Ext: <x>
CHNG          NEXT
```

6. To select a parameter, press **NEXT** until the display shows the parameter you want to change. To change the parameter, press **CHNG** and enter the new parameter value.

7. Press  to end this programming session.

## Deleting a Fax Overflow Mailbox

You can delete a Fax Overflow Mailbox at any time. When you delete a Fax Overflow Mailbox, an incoming fax transmission will meet a busy signal. Fax messages that were in the Fax Overflow Mailbox before it was deleted are automatically printed.

To delete a Fax Overflow Mailbox:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press MBOX.

```
Mailbox Admin
ADD  DEL  CHNG
```

4. Press DEL.

```
Mbox:
DIR          QUIT
```

5. Enter the Fax Overflow Mailbox number that you want to delete.

```
(mb name)
DEL          QUIT
```

6. Press DEL.

7. Press  to end this programming session.

## Adding a Fax System Group List

A Fax System Group List is used to send the same fax to all the members of a list. This eliminates sending the same fax several times. The maximum combined number of Voice and Fax Group Lists is 99.

To add a Fax System Group List:

1. Press    .

Log:  
QUIT RETRY

2. Enter the System Coordinator Mailbox number and password and press .

Admin  
MBOX AA

3. Press .

Admin  
 CCR

4. Press .

Group List Admin

5. Press .

GList:901  
VOICE

6. Press . Norstar Voice Mail automatically assigns a Fax System Group List number. Group List number 901 is an example.

Record name:  
RETRY

7. Pick up the handset and at the sound of the tone, record the Group List name and press  to end your recording.

**Note:** This Group List name is played to anyone who sends a Fax message to the fax machines in this group.

Accept name?  
RETRY

8. To listen to your recording, press . To record the name again, press . Press  to accept the recording.

Name:  
RETRY

9. Enter the Group List name and press . To enter the Group List name, refer to "[Entering characters using the Norstar Dialpad](#)" on page 12. The Group List name is a maximum of 16 characters.

Add first member

10. This display appears briefly and then changes to the display in step 11.

Name:  
RETRY

11. To add the Group List without adding members at this time, press .

If you want to add fax members to the Group List, refer to ["Adding fax machine members to a Fax System Group List"](#) on page 21. For more information about Group Lists, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Adding fax machine members to a Fax System Group List

Members of a Fax System Group List are fax machines from other locations. These fax machines do not have to be connected to your Norstar system. These fax machines can be internal or external numbers.

Since not all the fax machine members of this List are connected to your Norstar system, you must specify the telephone number of the fax machine and the line or line pool to be used. A maximum of 125 fax machine members can be added to a Fax System Group List.

To add a member to a Fax System Group List:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press OTHR.

```
Admin
GLIST  CCR  OTHR
```

4. Press GLIST.

```
Group List Admin
ADD  DEL  CHNG
```

5. Press CHNG.

```
GList:
RETRY  QUIT
```

6. Enter the number of the Fax System Group List you wish to add a member to.

```
GList Name
CHNG  NEXT
```

7. Press NEXT until the display shows.

`GList Name` is an example of a Group List name.

```
GList members
ADD  VIEW
```

8. Press ADD.

```
Name:
RETRY  BKSP  OK
```

9. Enter the new member's name and press OK to accept the member's name. To enter the name of the Fax System Group List, refer to ["Entering characters using the Norstar Dialpad"](#) on page 12. The name of the Fax System Group List is a maximum of 16 characters.



FINANCE  
CHNG      NEXT

10. Press NEXT.

FINANCE is an example of a Fax System Group List name.

Fax dest: none  
LINE   POOL   IC

11. Press LINE.

**Note:** Pressing POOL selects a line within a line pool. Pressing IC selects an intercom line. If you press IC you must enter an extension number, accept the number and go to step 15.

Line:  
RETRY      OK

12. Enter the line, pool or intercom number and press OK.

**Note:** If a Fax System Group List member is at a location that requires long distance dialing, the line or pool number selected must not have any long distance dialing restrictions.

Accept:1  
RETRY      OK

13. Press OK to accept the new number.

Dest. Ph:  
RETRY      OK

14. Enter the destination telephone number and press OK to end the new number.

7355822  
ADD      OK

15. In this example, 7355822 is the destination number. To cancel the number and enter a new number, press \*. To insert a pause, press 3. The pause entered is automatically four seconds long. To recognize dial tone, press 4. To enter more digits, press 2. To enter a star, press 6. To enter a number sign, press 5. Press OK to accept the new number.

GList members  
ADD      VIEW

16. Repeat steps 8 to 15 for each member you are adding to this Fax System Group List.

17. Press Rls to end this programming session.

## Sending a Fax System Group message (Fax Broadcast)

A Fax System Group message can be sent to notify a group, by way of a fax, of a pending event or company notice that only pertains to that group.

Before you send a Fax System Group message, ensure you have added the Fax System Group List, and the Group List contains all the fax machines that are to receive a message.

To send a Fax System Group message from your Norstar telephone:

1. Press    .

```
Pswd:
OTHR  RETRY  OK
```

2. Enter your password and press OK or .

```
1 new  4 saved
PLAY  REC  ADMIN
```

3. Press PLAY or  to retrieve your new Fax message. The fax identification number and any introductory voice content is played.

**Note:** If you want to send a saved Fax message, press  until you find the saved Fax message you want to send. To use this feature a Fax message must exist in your mailbox.

```
End of message
COPY  ERASE  NEXT
```

4. Press COPY or .

```
Copy fax
MBOX  OTHR
```

5. Press MBOX or .

```
Record intro?
YES  NO
```

6. Press NO or .

**Note:** Fax Group List recipients cannot hear voice introductions.

```
Mbox:
DIR          QUIT
```

7. Enter the Fax System Group List number.

```
GList: <x>
OPTS  CC  SEND
```

8. Press SEND or .

```
Msg delivered
```

9. This display appears briefly to acknowledge that the message has been delivered.

```
Another copy?
YES          QUIT
```

10. To send this Fax message to another Group List, press YES or . To end this session press QUIT or .

11. Press  to end this programming session.

---

# Setting up and maintaining Fax-on-demand mailboxes

# 4

## Introduction

As System Coordinator you perform all the tasks necessary for setting up and maintaining Fax-on-demand mailboxes. This chapter describes:

- About Fax-on-demand Mailboxes
- Adding a Fax-on-demand Mailbox
- Changing the parameters of a Fax-on-demand Mailbox
- Choosing a Fax-on-demand call method
- Adding a Fax message from a fax machine telephone
- Adding a Fax message from a disk
- Recording a Fax-on-demand Mailbox Greeting
- Deleting and viewing fax selection numbers in a Fax-on-demand Mailbox
- Including a Fax-on-demand Mailbox in CCR
- Deleting a Fax-on-demand Mailbox

Before you begin administering FAX, you should complete "[Appendix A: FAX Programming Record](#)" on page 51. This will help you collect and organize all the information you will need to administer FAX. Make a photocopy of the Appendix A: FAX Programming Record before you enter any information.

**Note:** To administer FAX in your company, you require a Norstar two-line display telephone. You cannot administer FAX from a Norstar single-line display telephone.

## About Fax-on-demand Mailboxes

A Fax-on-demand Mailbox allows external callers to retrieve Fax messages from Norstar Voice Mail. To set up a Fax-on-demand mailbox you must:

- add a Fax-on-demand mailbox
- choose whether the call method is one-call or accept the default two-call method
- add Fax messages from a fax machine telephone or a disk to the Fax-on-demand mailbox
- record a Fax-on-demand mailbox greeting which describes the documents available and instructions on how callers can retrieve them

You cannot add or update a Fax message in a Fax-on-demand Mailbox by using your Norstar two-line display telephone. For information about adding a Fax message, refer to "[Adding a Fax message from a fax machine telephone](#)" on page 31 or "[Adding a Fax message from a disk](#)" on page 32.

You can include a Fax-on-demand mailbox in Custom Call Routing (CCR). CCR allows mailbox owners to select options to direct their own calls. For more information on CCR, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Adding a Fax-on-demand Mailbox

To add a Fax-on-demand Mailbox:

1. Press  9 8 3.

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press MBOX.

```
Mailbox Admin
ADD  DEL  CHNG
```

4. Press ADD.

```
Mbox:
RETRY  QUIT
```

5. Enter the Fax-on-demand Mailbox number.

```
Type: subscriber
NEXT  OK
```

6. Press NEXT until you see the display in step 7.

```
Type: fax-on-dmnd
NEXT  OK
```

7. Press OK.

Service class:  
RETRY OK

8. Enter the Class of Service.

For information about Class of Service, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

Name:  
RETRY BKSP OK

9. Enter the Fax-on-demand Mailbox name and press OK.

For information about how to enter the name, refer to "[Entering characters using the Norstar Dialpad](#)" on page 12. The Fax-on-demand Mailbox name is a maximum of 16 characters.

Directory?  
YES NO

10. Press YES or NO. This is a Directory Override. Pressing YES means that the Fax-on-demand Mailbox name plays in the Company Directory.

Outdial: none  
LINE POOL

11. Press LINE.

**Note:** Press POOL for Norstar Voice Mail to select a line within a line pool. Refer to the *Norstar Voice Mail Set Up and Operation Guide* for important information about preventing unauthorized calls using the outdial feature.

Line:  
RETRY OK

12. Enter the Line or Pool number and press OK.

Accept: <line>  
RETRY OK

13. Press OK.

Retries: 3  
CHNG NEXT

14. Press CHNG.

Retries:  
RETRY OK

15. Enter the number of retries and press OK.

The default number of retries is three. The number of retries ranges from one to 99.

Retries: 3  
CHNG NEXT

16. Press NEXT.

Interval:10  
CHNG OK

17. Press CHNG.

Interval:  
RETRY      **OK**

18. Enter the retry interval time and press **OK**.

The default retry interval time is 10 minutes. This is a two-digit field. The retry interval time is a value between 01 and 60 minutes.

Interval:15  
CHNG      **OK**

19. Press **OK**.

Repeat steps 5 through 19 for each new Fax-on-demand Mailbox you want to add.

20. Press **Rls** to end this programming session.

Before you can use the Fax-on-demand Mailbox you must initialize it. For information about initializing a mailbox, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Changing the parameters of a Fax-on-demand Mailbox

You can change any Fax-on-demand Mailbox parameter, except the mailbox number. If you want to change a mailbox number, you must first delete the mailbox and then add the new Fax-on-demand Mailbox. Refer to "[Deleting a Fax-on-demand Mailbox](#)" on page 40 and "[Adding a Fax-on-demand Mailbox](#)" on page 26.

Changing the parameters of a Fax-on-demand Mailbox involves:

- locating the display with the parameter you want to change
- pressing **CHNG**
- entering the new parameter value

The Fax-on-demand Mailbox parameters appear in the same order as they appear when you add a Fax-on-demand Mailbox.

To change a Fax-on-demand Mailbox parameter:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press MBOX.

```
Mailbox Admin
ADD  DEL  CHNG
```

4. Press CHNG.

```
Mbox:
DIR  QUIT
```

5. Enter the Fax-on-demand Mailbox number.

```
Password
RESET  NEXT
```

6. To select a parameter, press NEXT until the display shows the parameter you want to change. To change the parameter, press CHNG and enter the new parameter value.

7. Press  to end this programming session.

## Choosing a Fax-on-demand call method

For each Fax-on-demand Mailbox you must choose whether the call method is one-call or two-call. When you choose the one-call method:

- the Fax message is transmitted during the original call
- the caller must use a fax machine to retrieve a Fax message
- the caller pays for any charges incurred

When you choose the two-call method:

- the Dialing Translation Table must be created and the Dialing Translation Parameters must be set
- the caller provides a fax telephone number of where the information is to be delivered
- the Fax message is transmitted in the second call which is originated by Norstar Voice Mail

**Note:** For information on creating the Dialing Translation Table and setting all the Dialing Translation Parameters, refer to "[Appendix B: Dialing Translation](#)" on page 57.

Each Fax-on-demand Mailbox is assigned a number of Fax messages a caller can request. The maximum number of Fax messages that can be requested is eight.

To choose a call method and the number of Fax messages:

1. Press    .

Pswd:  
OTHR RETRY OK

2. Press OTHR or .

Log:  
QUIT RETRY OK

3. Enter the Fax-on-demand Mailbox number and password and press OK or .

FaxOnDemand  
FAXES ADMIN

4. Press ADMIN or .

Mailbox admin  
GREET PSWD QUIT

5. Press .

Method: Two call  
CHNG NEXT

6. Press CHNG or  to choose the one-call method. In this display, Two represents the current call method. The two-call method is the default call method. If the current call method is correct, press NEXT or .

Limit: 8  
CHNG OK

7. Press CHNG or  and enter the number of faxes a caller can request. The default number of faxes a caller can request is eight. The number of faxes requested by a caller ranges from one to eight.

Limit:  
RETRY OK

8. Press OK or .

Limit: 7  
CHNG OK

9. Press OK or  again to accept the number of faxes a caller can request.

10. Press  to end this programming session.



## Adding a Fax message from a fax machine telephone

You must enter a selection identification number when you add a Fax message from a fax machine telephone to a Fax-on-demand Mailbox. The selection identification number is used by callers to select the document they want to retrieve.

Immediately after you add or update a Fax message in the Fax-on-demand Mailbox, verify that the Fax message has been received and is ready for customer use. Access the Fax-on-demand Mailbox and print the new or updated Fax messages.

To add a Fax message from a fax machine telephone to a Fax-on-demand Mailbox:

1. From a fax machine telephone, dial a telephone number that will be answered by the Automated Attendant.
2. Once the Automated Attendant answers the call, press  .
3. Enter the Fax-on-demand Mailbox number and password.
4. Press .
5. Press .
6. Press  again to add a Fax message.

**Note:** To change or delete a Fax message, follow the voice prompts.

7. Enter the Fax-on-demand selection identification number.

**Note:** The Fax-on-demand selection identification number must be a unique number with a maximum of eight digits and may not start with zero or nine.

8. Press .
9. Press the START/SEND key on your fax machine when prompted. The Norstar Voice Mail session will end when the transmission is complete.

## Adding a Fax message from a disk

You can add or update a Fax message by loading the Fax message onto a 3.5" disk and inserting the 3.5" disk into the floppy disk drive of your Norstar applications server. This method will result in a cleaner outgoing fax and the process will be noticeably faster than adding a Fax message from a fax machine telephone.

You will be prompted to enter the number of a Fax-on-demand Mailbox and the selection identification number of the Fax message at the Norstar set. Then place the disk into the disk drive of the Norstar applications server. If the Fax message is a new document and not an updated version of a past document, you must confirm its creation.

After you have added a Fax message to a Fax-on-demand Mailbox, you should verify the existence of the Fax message by sending it to a fax machine. Ensure the Fax message is complete and the page numbering matches the number of pages of the selection. Check all selections in the Fax-on-demand Mailbox before advertising the selections in your Fax-on-demand greeting.

The disk must contain only one Fax message. The Fax message must be in one of the file formats indicated by the appropriate file extension listed below:

Extension	Assumed Content
.TXT	ASCII file.
.PCX	PC Paintbrush format (black & white only). A .PCX image that is 18 X 22.92 inches will be reduced and print as 8.5 X 11 inches.
.TIF	Tag Image File Format Class F (TIFF-F). Only Class F File Formats are supported.

**Note:** Norstar Voice Mail FAX supports black and white .PCX files created with Paintbrush for Windows 3.1. If you are using another application, verify that the file has been successfully added and the Fax message can be sent to a fax machine. If the file cannot be sent to a fax machine successfully, refer to "[Appendix C: Technical content of a loadable .PCX file](#)" on page 73, for the required content of the .PCX file header.

To add a Fax message from a disk:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press OTHR until you see the FAX option.

4. Press FAX.

```
Fax Admin
PARM  LOAD
```

5. Press LOAD.

```
Mbox:
DIR          QUIT
```

6. Enter the Fax-on-demand Mailbox number. A Fax-on-demand Mailbox must already exist in order to add the Fax message. If a Fax-on-demand Mailbox does not exist, you must create one before adding the Fax message. Refer to ["Adding a Fax-on-demand Mailbox"](#) on page 26.

```
Select: x
RETRY      OK
```

7. Enter the Fax-on-demand selection identification number and press OK. The Fax-on-demand selection identification number is a maximum of eight digits, must be unique, and may not start with zero or nine.

```
Create: x
RETRY      OK
```

8. The number that appears in this display (x) will be the same number entered in step 7, if it is a new selection identification number. Press OK.

```
Insert disk
QUIT      OK
```

9. Insert the 3.5" disk into the floppy disk drive of your Norstar applications server and press OK on the Norstar set.

```
Checking disk ...
```

```
Checking file ...
```

```
Num of Pages: 1
CHNG      OK
```

10. Press CHNG.

```
Num of Pages:
RETRY      OK
```

11. Enter the number of pages in the Fax message and press OK.

Num of Pages: X  
CHNG OK

12. Press **OK** to accept the number of pages in the Fax message.

Loading ...

13. The disk must contain only one Fax message file. When the file has been successfully loaded, you will see the display in step 14.

File Loaded

14. If the Fax message file is loaded successfully the Norstar applications server beeps 3 times. If the Fax message file is not loaded successfully the Norstar applications server will beep twice. Even if the Fax message file appears to have been loaded successfully, you should test it by sending the Fax message to the fax machine.

15. After the Fax message file has been successfully loaded, the display returns to the **Admin** prompt. You can then safely remove the disk from the floppy disk drive of the Norstar applications server.

16. Press **Rls** to end this programming session.

## Recording a Fax-on-demand Mailbox Greeting

You must record a greeting for each Fax-on-demand Mailbox. This greeting is played to callers who access the Fax-on-demand Mailbox. The maximum length of this greeting is designated by the Class of Service.

Before you record the Fax-on-demand Mailbox Greeting, prepare a greeting for each Fax-on-demand Mailbox. Your greeting should describe the documents available and instructions on how callers can retrieve them. For example, you might record your greeting for a one-call method Fax-on-demand Mailbox by saying:

*“Hello. You have reached Paddy’s Dance Studio fax information Hotline. If you are calling from a fax machine telephone, you can receive information on class schedules and prices, registration forms and upcoming special events. To receive class schedules and prices, press **1**. To receive registration forms, press **2**. To receive information about upcoming special events, press **3**. After you have entered the required numbers, press **START** on your fax machine.”*

If you are using the Norstar Voice Mail bilingual capability, you should also record the Fax-on-demand Mailbox Greeting in the alternate language.

For the two-call method Fax-on-demand Mailbox to function properly, the Dialing Translation Table must be created and the Dialing Translation Parameters must be set. Refer to ["Appendix B: Dialing Translation"](#) on page 57.

An example of a two-call method Fax-on-demand Mailbox greeting is:

*“Hello. You have reached Paddy’s Dance Studio fax information Hotline. You can receive information on class schedules and prices, registration forms and upcoming special events. To receive class schedules and prices, press [1]. To receive registration forms, press [2]. To receive information about upcoming special events, press [3]. Enter the telephone number of the fax machine you wish to have the faxes sent to. If you are calling long distance remember to include the area code.”*

To record a greeting:

1. Press    .

```
Pswd:
OTHR  RETRY  OK
```

2. Press OTHR or .

```
Log:
QUIT  RETRY  OK
```

3. Enter the Fax-on-demand Mailbox number and password and press OK or .

```
FaxOnDemand
FAXES  ADMIN
```

4. Press ADMIN or .

```
Mailbox admin
GREET  PSWD  QUIT
```

5. Press GREET or .

```
Primary greeting
REC  NEXT
```

6. Press REC or .

```
Record greeting:
RETRY  PLAY  OK
```

7. At the tone, record the Primary Fax-on-demand Mailbox Greeting and press OK or  to end the recording.

```
Accept greeting?
RETRY  PLAY  OK
```

8. To listen to your greeting before accepting it, press PLAY or . To record your greeting again, press RETRY or . Press OK or  to accept your Primary Fax-on-demand Mailbox Greeting.

```
Primary Greeting
REC  PLAY  NEXT
```

9. To record an Alternate Fax-on-demand Mailbox Greeting, press NEXT or  and follow the instructions that appear on the display.

10. Press  to end this programming session.

## Deleting and viewing fax selection numbers in a Fax-on-demand Mailbox

You can delete or view a fax selection number using your Norstar two-line display telephone. If you delete a fax selection number, the Fax message that is associated with the fax selection number is also deleted.

To delete or view a fax selection number in a Fax-on-demand Mailbox:

1. Press    .

```
Pswd:
OTHR  RETRY  OK
```

2. Press OTHR or .

```
Log:
QUIT  RETRY  OK
```

3. Enter the Fax-on-demand Mailbox number and password and press OK or .

```
FaxOnDemand
FAXES  ADMIN
```

4. Press FAXES or .

```
<x> faxes
ADD  CHNG  QUIT
```

5. Press CHNG or .

```
Select: <x>
UPDATE  DEL  NEXT
```

6. To view the fax selection numbers, press NEXT or . If you know the fax selection number, then enter the fax selection number of the Fax message that you wish to view. To delete the Fax message associated with the fax selection number shown, press DEL or .

**Note:** To update a Fax message, you must use a fax machine telephone or update the Fax message by disk. For information about loading or updating Fax messages, refer to ["Adding a Fax message from a fax machine telephone"](#) on page 31 or ["Adding a Fax message from a disk"](#) on page 32.

```
Select deleted
```

7. Press  to end this programming session.

## Including a Fax-on-demand Mailbox in CCR

FAX can be used with Custom Call Routing (CCR) by including a Fax Point on your CCR Tree. This Fax Point allows callers to use the call routing features of CCR to access a Fax-on-demand Mailbox.

## Assigning a Home Fax Point

You can assign the Home Point of a CCR Tree as a Fax Point. The Home Point is the first Point that callers get when they access a CCR Tree. For more information about the Home Point, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

If you assign the Home Point as a Fax Point, you cannot add any other Points to this CCR Tree. Ensure the Fax-on-demand Mailbox is initialized before assigning the mailbox number to a CCR Tree.

To assign a Home Fax Point:

1. Press Feature 9 8 3.
2. Enter the System Coordinator Mailbox number and password and press OK.  
Log:  
QUIT RETRY OK
3. Press OTHR.  
Admin  
MBOX AA OTHR
4. Press CCR.  
Admin  
GLIST CCR OTHR
5. Press ADMIN.  
CCR Admin  
ADMIN
6. Enter the CCR Tree number and press OK. The CCR Tree number is a number from 1 to 4.  
CCR tree:  
RETRY OK
7. Press BUILD.  
New tree: <1>  
BUILD QUIT
8. Press OTHR until you see the display in step 9.  
0 Home/Menu  
REC OTHR OK
9. Press CHNG.  
0 Home/FOD  
CHNG OTHR OK
10. Enter the Fax-on-demand Mailbox number.  
Mbox:  
DIR QUIT
11. To save the CCR Tree, press END and follow the instructions that appear on the display.  
Path:  
RETRY END OK
12. Press Ris to end this programming session.

This completes assigning a Home Fax Point. For more information about designing, building, changing, saving and enabling a CCR Tree, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Adding a Fax Point

A Fax Point gives a caller access to a Fax-on-demand Mailbox. This mailbox provides a caller with single-digit access to a fax or list of faxes. If a CCR Tree does not already exist, you must create one. The Home Menu must exist before you can add a Fax Point.

For information about adding Fax messages, refer to "[Adding a Fax message from a fax machine telephone](#)" on page 31 or "[Adding a Fax message from a disk](#)" on page 32.

To add a Fax Point:

1. Press    .
2. Enter the System Coordinator Mailbox number and password and press OK.
 

Log:  
 QUIT    RETRY    OK
3. Press OTHR.
 

Admin  
 MBOX    AA    OTHR
4. Press CCR.
 

Admin  
 GLIST    CCR    OTHR
5. Press ADMIN.
 

CCR Admin  
 ADMIN
6. Enter the CCR Tree number and press OK. The CCR Tree number is a number from 1 to 4.
 

CCR tree:  
 RETRY            OK
7. Press CHNG.
 

Tree: 1  
 CHNG    PRINT    QUIT
8. Enter the Path number and press OK.
 

Path:  
 RETRY    END    OK
9. Press OTHR. The  $\times$  shown in steps 9 to 11 represents the Path number.
 

<x>  
 MENU    INFO    OTHR
10. Press OTHR.
 

<x>  
 XFER    LUMSG    OTHR
11. Press FAX.
 

<x>  
 FAX    ERASE
12. Enter the Fax-on-demand Mailbox number.
 

Mbox:  
 DIR                    QUIT
13. Press PREV to return the caller to the previous point. Pressing HOME returns the caller to the Home Menu. Pressing DISC disconnects the call.
 

Destination?  
 PREV    HOME    DISC



```
Path:
RETRY  END  OK
```

14. To save the Tree, press **END** and follow the instructions that appear on the display.

15. Press **Rls** to end this programming session.

For more information about designing, building, changing, saving or enabling a CCR Tree, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Changing a Fax Point

From CCR, you can change the Fax-on-demand Mailbox number and destination of a Fax Point. To change the greeting, call method or Fax messages available, you must open the Fax-on-demand Mailbox via **Feature** **9** **8** **1**. For information about changing the parameters of Fax-on-demand Mailboxes, refer to "[Changing the parameters of a Fax-on-demand Mailbox](#)" on page 28.

To change a Fax Point:

1. Press **Feature** **9** **8** **3**.

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press **OK**.

```
Admin
MBOX  AA  OTHR
```

3. Press **OTHR**.

```
Admin
GLIST  CCR  OTHR
```

4. Press **CCR**.

```
CCR Admin
ADMIN
```

5. Press **ADMIN**.

```
CCR tree:
RETRY  OK
```

6. Enter the CCR Tree number and press **OK**. The CCR Tree number is a number from 1 to 4.

```
Tree: 1
CHNG  PRINT  QUIT
```

7. Press **CHNG**.

```
Path:
RETRY  END  OK
```

8. Enter the Fax Point Path number and press **OK**.

```
<x> Fax
CHNG  ERASE  OK
```

9. Press **CHNG**. The **x** represents the Path number.

```
Mbox: <xxx>
CHNG  NEXT
```

10. Press **NEXT**.

```
Dest: <type>
CHNG  OK
```

11. Press **CHNG**. The type shown on this display is the current destination type.

Destination?  
PREV HOME DISC

12. Press PREV to return the caller to the previous point. Pressing HOME returns the caller to the Home Menu. Pressing DISC disconnects the call.

Dest: <type>  
CHNG OK

13. Press OK.

Path:  
RETRY END OK

14. To save the CCR Tree, press END and follow the instructions that appear on the display. For more information about designing, building, changing, saving or enabling a CCR Tree, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

15. Press Rls to end this programming session.

## Deleting a Fax-on-demand Mailbox

You can delete a Fax-on-demand Mailbox at any time. To delete a Fax-on-demand Mailbox:

1. Press Feature 9 8 3.

Log:  
QUIT RETRY OK

2. Enter the System Coordinator Mailbox number and password and press OK.

Admin  
MBOX AA OTHR

3. Press MBOX.

Mailbox Admin  
ADD DEL CHNG

4. Press DEL.

Mbox:  
DIR QUIT

5. Enter the Fax-on-demand Mailbox number that you want to delete.

(mb name)  
DEL QUIT

6. Press DEL and the display returns to the **Mailbox Admin** prompt shown in step 4.

7. Press Rls to end this programming session.

## Introduction

Troubleshooting FAX involves solving problems that are related to the FAX options. For troubleshooting information about other aspects of Norstar Voice Mail, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Problems and solutions

### **Callers cannot retrieve a fax from a Fax-on-demand Mailbox.**

If a caller cannot retrieve a Fax message from a Fax-on-demand Mailbox, check the following:

1. Verify that the mailbox is a Fax-on-demand Mailbox.
2. Verify that Fax messages have been added to this mailbox.
3. Make sure your greeting tells the user how to retrieve the Fax message. This includes information about which call method is used.
4. If the two-call method is being used, verify that the Dialing Translation Table has been created and the Dialing Translation Parameters are set.

### **Callers cannot leave a fax in a Personal Mailbox.**

If a caller cannot leave a Fax message in a mailbox, check the following:

1. Make sure the mailbox greeting tells the caller to press  before pressing START/SEND on the fax machine.
2. Ensure the greeting tells the caller that the call must be made from a fax machine.

**A user cannot reply or send messages to other mailboxes.**

If a user cannot reply or send messages to other mailboxes, the user's mailbox may be full. This means that too many voice and fax messages are being stored in the mailbox and the user must delete old messages from the mailbox. If this problem occurs too often, assign the mailbox a different class of service to give the user more mailbox space.

Norstar Voice Mail mailboxes are equipped with the Never Full Mailbox Feature, which allows external callers to leave voice and fax messages in your mailbox, even if the mailbox is "full". The message will be stored, but cannot be accessed until you delete at least one saved message. The Never Full Mailbox Feature is only available to external callers. Internal callers cannot leave messages if a mailbox is full.

**Faxes that are sent when the fax machine is busy are lost.**

If Fax messages sent when the fax machine is busy are not being received, check the following:

1. Verify that a default fax extension has been set up.
2. Verify that a Fax Overflow Mailbox has been added to Norstar Voice Mail.
3. Verify that the extension defined in the Fax Overflow Mailbox is the extension number of the fax machine.
4. Make sure the fax machine is connected to the Norstar system through an ATA.

**A message indicates that faxes could not be sent to the fax machine.**

If this occurs on a local fax machine, check the following:

1. Verify that the fax machine is ready to receive and is not jammed or out of paper.
2. Verify that the fax machine is connected to the Norstar system through an ATA.
3. Increase the number of retries assigned to the Fax Overflow Mailbox associated with that machine.

**Note:** To change the number of retries, refer to ["Changing the Fax Overflow Mailbox parameters"](#) on page 18.

If this occurs on a fax machine that is remote, check the following:

1. Verify that you entered the correct fax number.
2. Verify that there are no dialing restrictions applied to the users extension.

**A message indicates that faxes could not be sent from the Fax Overflow Mailbox.**

The message left in the General Delivery Mailbox is shown below:

*“The attached Fax message could not be printed to <fax machine extension>.”*

This message indicates that the maximum number of retries has been reached by the Fax Overflow Mailbox and the Fax message has still not been sent. If this occurs, you should:

1. Verify that the fax machine is still operable.
2. Verify that the fax machine is connected to the Norstar system through an ATA.
3. Increase the maximum number of retries set in the Fax Overflow Mailbox.

**Fax messages are being left in the General Delivery Mailbox**

When the Fax Overflow Mailbox retry limit is reached for a Fax message, the message is automatically sent to the General Delivery Mailbox.

1. Verify that the fax machine is still operable.
2. Verify that the fax machine is connected to the Norstar system through an ATA.
3. Open the General Delivery Mailbox and forward the Fax messages to another fax machine connected to the Norstar system. Be sure to check the General Delivery mailbox on a regular basis.
4. Off-premise Message Notification can be set up to notify you when a message has been received in the General Delivery Mailbox. For more information about Off-premise Message Notification and the General Delivery Mailbox, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

## Error messages

While you are programming Norstar Voice Mail, an error message may appear on your Norstar telephone display. This section describes the Error Messages that are related to FAX. The Error Messages shown here are presented in alphabetical order. For a list of all Norstar Voice Mail Error Messages, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

### **Invalid ext**

Appears when an incorrect extension is entered. Check the DN length or use the Company Directory.

### **Invalid glist**

Appears when a FAX Group List is used for a voice message or when a voice Group List is used for a fax message.

### **Invalid mailbox**

Appears when an incorrect mailbox number is entered.

### **Invalid number**

Appears when entering an incorrect number for one of the FAX parameters. For the correct range of values for a specific FAX parameter, refer to Chapters 3 and 4 of this guide.

### **LOCKED**

Appears when a Fax-on-Demand mailbox has been disabled because of excessive incorrect password attempts.

### **Mbox needed**

Appears when adding a Fax Point to a CCR Tree and a mailbox number has not been specified when required.

### **Mbox not init**

Appears when a message is sent to a mailbox that is not initialized.

### **Must be unique**

The value you have entered as the fax selection number has already been assigned to another Fax message. Fax numbers must be unique.

### **NONAMEREC**

Appears when a mailbox is initialized but the spoken name is not recorded.

### **NOGREET**

Appears when a Fax-on-demand mailbox is initialized but the Primary Greeting is not recorded.

### **None to print**

Appears when trying to print faxes when there are no faxes in the mailbox.

**Not available**

When a FAX feature is attempted after the FAX hardware has been removed or FAX has been disabled.

**Not set up**

When PRESET is selected before it has been set up.

**Rec too long**

Appears when a recorded message is too long. Message or greeting length for a mailbox is determined by the Class of Service.

**Speak up**

Appears when recording a greeting or message and the minimum volume level of Norstar Voice Mail is not met. Do not use Handsfree. When recording a greeting or message, speak directly into the handset of your Norstar telephone.

**UNINIT**

Appears when the Fax-on-demand mailbox has not been initialized.

**WARN Mbox uninit**

Appears when a Fax-on-demand mailbox is not initialized.

**WARN Mbox empty**

Appears when the Fax-on-demand mailbox has no content.

### Disabling and Re-enabling Norstar Voice Mail Channels

In the course of diagnosing a system problem you may find it necessary to disable a particular Norstar applications server Channel. After the problem has been solved, you will need to re-enable the Norstar applications server Channel. If you attempt to disable all the Channels, the system will reboot itself.

To disable a Channel:

1. Press  9 1 5 .

2. Enter the default password        (ACCESS2).

3. Press NEXT until you see the display in step 4.

4. Press SHOW.

5. Press SHOW.

```
01-08 > ccc**crr
QUIT NEXT DETAIL
```

6. Press DETAIL.

```
1: 2225 ***
QUIT NEXT DSBL
```

7. Press NEXT until the Channel you want to disable is displayed.

```
3: 2227 ***
QUIT NEXT DSBL
```

8. Press DSBL.

```
3: Not in sync
QUIT NEXT ENBL
```

9. Press Rls to end this programming session.

To re-enable the Channel:

1. Press Feature 9 1 5.

```
Password:
RETRY
```

2. Enter the default password 2 2 2 3 7 7 2 (ACCESS2).

```
ACCESS Server
BACK NEXT ADMIN
```

3. Press NEXT until you see the display in step 4.

```
Channel Status
BACK NEXT SHOW
```

4. Press SHOW.

```
Chan Status Menu
QUIT ALL SHOW
```

5. Press SHOW.

```
01-08 >cc**crr
QUIT NEXT DETAIL
```

6. Press DETAIL.

```
1: 2225 ***
QUIT NEXT DSBL
```

7. Press NEXT until the Channel you want to re-enable is displayed.

```
3: Not in sync
QUIT NEXT ENBL
```

8. Press ENBL.

```
3: 2227 ***
QUIT NEXT DSBL
```

9. Press Rls to end this programming session.



## Introduction

This chapter provides examples of different fax features and tips for using FAX.

## Examples of FAX set ups

FAX can be set up to perform several different functions. How you choose to set up FAX depends on your requirements for fax storage and retrieval.

The following examples describe how the different fax features are used by a small fictitious company called Paddy's Dance Studio. This company uses the Norstar Voice Mail Fax functions to inform callers of upcoming events and allow students to register by fax.

### Example of a Fax-on-demand Mailbox set up

Paddy's Dance Studio uses a Fax-on-demand Mailbox to inform students of upcoming events. In this mailbox there are three Fax messages that are updated every month. The first Fax message contains the schedule for regular and drop-in classes. The second Fax message lists the current prices for each class. The final Fax message contains a schedule for the upcoming special events such as musicals, dance recitals and open houses. Each of the Fax messages is sent using the one-call method. This means the caller pays for any charges incurred.

Since the Fax-on-demand Mailbox contains three different Fax messages, the greeting for this mailbox must contain instructions that tell the caller how to get the information they want. For example:

*“Hello. You have reached Paddy's Dance Studio's fax information mailbox. If you are calling from a fax machine telephone, you can receive information on class schedules, prices, and upcoming special events. To retrieve class schedules, press [1]. To get a detailed price list, press [2]. To get information about upcoming special events, press [3].”*

### Sample Fax Messaging set up

The registrar of Paddy's Dance Studio uses a personal mailbox to receive registration Fax messages from students. These Fax messages are sent to a mailbox and not the fax machine because the registration forms contain personal information, such as addresses and telephone numbers. The registration faxes are collected in the mailbox and sent to the fax machine when the registrar is available to pick them up.

The greeting on the registrar's mailbox must contain information about how to send the Fax message. For example:

*"Hello. You have reached Paddy's Dance Studio's registration desk. To speak to the receptionist, press [0]. To leave a message for the registrar, leave your name, telephone number and message after the tone.*

*If you are calling from a fax machine telephone, you can register for a class by fax. On your registration fax form, remember to include your name, telephone number, address and the name of the class you are registering for. Also remember that payment is due before the start of the first class. To register now by fax, press [8] and then the START button on your fax machine."*

#### **Sample Fax Overflow set up**

Paddy's Dance Studio has only one fax machine and it can get very busy. To prevent losing any Fax messages due to a busy fax machine, a Fax Overflow Mailbox was added to Norstar Voice Mail. This mailbox collects any incoming Fax messages that come in while the fax machine is busy.

## **FAX Tips**

#### **Printing a fax from a Fax Overflow Mailbox to another fax machine**

If a fax machine that is assigned to a Fax Overflow Mailbox is out of order for an extended time, you can print the stored Fax messages on another fax machine connected to the Norstar system. To print the Fax messages, change the extension number of the Fax Overflow Mailbox to the extension of a working fax machine. After the stored Fax messages are printed, change the extension number back to the extension of the original fax machine so you do not miss incoming Fax messages.

For information about setting the extension number of a Fax Overflow Mailbox, refer to ["Changing the Fax Overflow Mailbox parameters"](#) on page 18.

#### **Adjusting the mailbox Class of Service**

All personal mailboxes allow Fax messages, incoming Fax messages and incoming voice messages to be stored in the same message space. The amount of space available is determined by the mailbox Class of Service. If the user expects several Fax messages, you may need to change the mailbox Class of Service to allow more message space.

**Setting up notification of a fax machine problem**

When a Fax message is sent to the Fax Overflow Mailbox and the retry limit is reached, the Fax message is automatically sent to the General Delivery Mailbox. The System Coordinator can then open the General Delivery Mailbox and forward the Fax messages to another fax machine connected to the Norstar system. The System Coordinator should check the General Delivery mailbox on a regular basis. Off-premise Message Notification can be set up to notify the System Coordinator when a message has been received in the General Delivery Mailbox. For more information about setting up Off-premise Message Notification and the General Delivery Mailbox, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

**Transferring a fax caller to your mailbox**

If a caller is phoning from a fax machine telephone and is attempting to leave a Fax message in your mailbox, but you answer the call, you can transfer the caller to your mailbox. When you answer the call, inform the caller you will transfer them to your mailbox. Press  9 8 6 and enter your mailbox number. The caller will hear your mailbox greeting and will be able to leave a Fax message. Inform the caller to press 8 before pressing START on their fax machine.

If you answer your telephone and hear a Fax Calling Tone, you can transfer the call to your mailbox by pressing  9 8 6 and entering your mailbox number. The Fax message will be left in your mailbox.

---

# Appendix A: FAX Programming Record

## Before you begin

- Make copies of the pages in this chapter you will need for recording more program settings.
- When a telephone is used for programming, a Norstar two-line telephone must be used.

## Programming overview

This overview provides a recommended approach to FAX programming. To use this overview:

- Start at the top and progress down through the programming options. Determine which options require your attention.
- You will be programming Fax Mail on an installed Norstar Voice Mail system. Refer to the Norstar Voice Mail documentation for information on Norstar Voice Mail system operation. Refer to the *Norstar Voice Mail Programming Record* for specific information about what has already been programmed for Norstar Voice Mail.
- Refer to the page number to find where that option is in this Programming Record. Space is provided for you to write the option or circle an option (if provided). The defaults are shown in **bold** text.
- Instructions for accessing each programmable option are provided in brackets (“F” means “Feature”).

**Note:** To record the programming for the Dialing Translation Table, refer to the *Norstar Voice Mail Programming Record*.


Description of programming	Title	Page
Record a general description of your fax setup	Pre-installation checklist	<a href="#">page 52</a>
Record dialing translation parameters for your system	Dialing Translation Parameters	<a href="#">page 52</a>
Add Fax Mailboxes (F983, then press MBOX and follow prompts)	Mailbox Administration	<a href="#">page 53</a>
Configure Fax Mailboxes (F983, then press FAX and follow prompts)	Mailbox Configuration	<a href="#">page 56</a>
Define Fax System Group Lists (F983, then press GLIST and follow prompts)	Fax System Group Lists	<a href="#">page 55</a>

**Pre-installation checklist**

DN/mailbox number length	1 2 3 4 5 6 7																				
Installer's name																					
Installation date																					
Model of office fax machine(s)																					
DN or telephone number of office fax machine(s)	<table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>																				

**Dialing Translation Parameters**

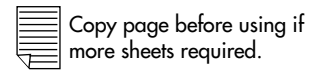
Long distance access code	
Area code	
Access code	
Reply translation	Y <b>N</b>

Copy page before using if more sheets required. 

**Mailbox Administration**

Mailbox number	Extension*	Name (1 to 16 letters)	Type (check <input checked="" type="checkbox"/> one)	
			Fax-on-demand	Fax Overflow

\* Applicable only for Fax Overflow Mailboxes



## Mailbox Configuration

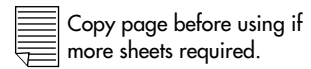
Fax Overflow	
Mailbox	<input type="text"/>
Fax machine extension number	<input type="text"/>
Retry attempts (01-99)	<input type="text"/>
Retry interval (01-60 min)	<input type="text"/>

Fax-on-demand	
Mailbox	<input type="text"/>
Directory name	<input type="text"/>
Greeting	Primary:
	<input type="text"/>
	Alternate:
	<input type="text"/>
Delivery mode	One-call <b>Two-call</b>
Maximum number of faxes*	1 2 3 4 5 6 7 8
Description of fax contents	<input type="text"/>
	<input type="text"/>
	<input type="text"/>

Fax-on-demand	
Mailbox	<input type="text"/>
Directory name	<input type="text"/>
Greeting	Primary:
	<input type="text"/>
	Alternate:
	<input type="text"/>
Delivery mode	One-call <b>Two-call</b>
Maximum number of faxes*	1 2 3 4 5 6 7 8
Description of fax contents	<input type="text"/>
	<input type="text"/>
	<input type="text"/>

\* The maximum number of faxes requested by a caller ranges from 1 to 8. A mailbox can store as many faxes as space permits.

# Fax System Group Lists



Group List number* (901 to 999)	<input type="text"/>
Type	FAX
Name (voice recording)	<input type="text"/>
Name (max. 16 letters)	<input type="text"/>
Line or Line Pool number and Telephone number of fax machine (1-30 digits)	

<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

\*The Group List leading digit may be changed from the default of 9. This is done by the Installer or System Coordinator during System initialization.



---

# Appendix B: Dialing Translation

## Introduction

This chapter describes how to set up the Dialing Translation Table and how to set Dialing Translation Parameters. This chapter describes:

- How the Dialing Translation Table works
- Dialing Translation Parameters
- Dialing Translation Table Administration
- Technician Created Dialing Translation Table
- Installing the Dialing Translation Table onto the Norstar Voice Mail System

There are several instances when Norstar Voice Mail generates an outbound call. One instance is when a mailbox subscriber replies to a Caller ID (Calling Line Identification-CLID) message. In this situation, Norstar Voice Mail generates a telephone number to be dialed by the public switched telephone network.

Another instance is when the Fax-on-demand two-call method is used. In this situation, a caller enters the telephone number of the fax machine where information is to be delivered. In a second call, Norstar Voice Mail transmits the document. However, the telephone number entered by the caller may contain errors. For example, the caller may forget to add the area code or add a long distance access code when it is unnecessary.

In both instances several changes must occur before the number can be dialed successfully through the local telephone network. The Dialing Translation Table and Dialing Parameters determine these changes for the user.

## How the Dialing Translation Table works

A telephone number is entered by a caller or is derived from information attached to an incoming Caller ID message. The number is then looked up in the Dialing Translation Table. If the leading digit or digits match a Dialing Translation Table Input value, the number is then substituted for the Output value. This change results in a telephone number that can be dialed on the local network. The changing of the number usually consists of dropping an area code or inserting an access code, based on the dialing rules of the local network. For example, if a local number is prefixed with the long distance code “1”, it is removed by the Dialing Translation Table.

The Dialing Translation process is immediate so calls will not take any longer to dial. Not all telephone numbers need to be changed before dialing. The Dialing Translation Table is created by the System Coordinator.

## Telephone number Translation

The Dialing Translation Table changes Network DNs into numbers that can be dialed on the local network. The Network DN form of a telephone number is the normal form in which the number appears. For example, on a business card a telephone number would read 403-555-5050. This number, in its Network DN form, must be translated into a number that can be dialed on the local telephone network. The Dialing Translation Table follows the rules required to make the call.

The Dialing Translation Table needs to define each possible case where some degree of change is needed to allow the number to be dialed on the local network.

Every Dialing Translation Table entry consists of an Input column and an Output column. The values in the Input column represent the leading digits of the Network DN which, if matched, are replaced by the corresponding value in the Output column. The "\*" character shown after a value signifies any digits in the telephone number remaining to be dialed. Norstar Voice Mail automatically adds the "\*" character after every Input and Output value.

Any given telephone number will either match a specific Input value or will not match at all.

The following three tables are examples of Dialing Translation Tables and how they function.

A sample Dialing Translation Table taken from a site located in metropolitan Toronto, Ontario.

### Sample Dialing Translation Table

INPUT	OUTPUT	Explanation
011*	011*	The Table will not attempt to translate international telephone numbers.
416*	*	The Table removes the 416 area code and dials all calls as 7 digits.
905206* 90527* etc. (135 more entries)	905206* 90527* etc. (135 more entries)	These telephone exchanges can be dialed as local (no long distance charges) 10 digit calls from the 416 area.
905*	1905*	All other 905 numbers not listed in the Input column above are long distance numbers and must be dialed as 11 digit long distance numbers.
*	1*	All numbers that do not begin with 011, 416 and 905 are long distance, and will have a "1" added as a prefix.

A sample Dialing Translation Table taken from a site located in Mountainview, California.

#### Sample Dialing Translation Table

INPUT	OUTPUT	Explanation
		The Dialing Translation Table is empty. The local network in Mountainview supports 10 digit national dialing with recognized long distance charging. In situations like the Mountainview example, there is no need to build a Dialing Translation Table.

A sample Dialing Translation Table taken from a site in area code 206 near the border with area code 360.

#### Sample Dialing Translation Table

INPUT	OUTPUT	Explanation
011*	011*	The Table will not attempt to translate international telephone numbers.
20644* 206626* etc. (40 more entries)	44* 626* etc. (40 more entries)	Due to the site location, some calls can be dialed as local 7 digit numbers.
206*	1206*	All other 206 numbers require 11 digit long distance dialing.
360224* 360227* 360472*	360224* 360227* 360472*	These 360 numbers can be dialed as 10 digit local numbers...
360*	1360*	... but all other 360 numbers are 11 digits long distance numbers.
*	1*	All numbers that do not begin with 011, 206 and 360 are long distance and will have a "1" added as a prefix.

### Network Access

The Dialing Table Translation results in a number that can be dialed on the local network. The final step is to add (prefix) digits to the beginning of the number to reach the local network from your Norstar System. Systems that are behind a PBX must have digits prefixed to the beginning of the telephone number. In North America "9" is typically prefixed to the beginning of the telephone number. Systems attached to the central office (CO) lines do not require digits to be prefixed.

## Dialing Translation Parameters

The Dialing Translation process is controlled by four parameters. In order for the Fax-on-demand two-call method to be functional, a value **must** be entered for the long distance access code and the area code parameters. Also, the reply translation parameter **must** be set to “Y” (yes) if you are using the Reply to Caller ID feature. The Dialing Translation Parameters are explained below.

**Long distance access code** (Lg dst ac): This prefix will be removed from any numbers if it is not needed to make the call. This in turn will make the creation of the Dialing Translation Table much simpler. For North America, the long distance access code should be set to “1”. The default for this parameter is: none. The field for this parameter is a maximum of 2 digits.

**Area code** (Area cd): If a telephone number entered by a caller appears to be missing an area code, this area code will be prefixed to the number. The area code will be considered missing if the number is less than 10 digits. The default for this parameter is: none. The field for this parameter is a maximum of 6 digits.

**Access code** (Access cd): This number is prefixed to all numbers, after Translation, in order to access the local telephone network. The access code is required if Norstar Voice Mail is installed behind a PBX or PABX. In North America, the access code is usually “9”. If Norstar Voice Mail is attached directly to Central Office (CO) lines, the Access Code should be set to “none”. The default for this parameter is: none. The field for this parameter is a maximum of 2 digits.

**Reply translation** (Reply trans): When using the Reply to Caller ID feature, the reply translation **must** be set to “Y”. The default for this parameter is: N.

### Setting the Dialing Translation Parameters

When using the Fax-on-demand two-call method, you must set up the Dialing Translation Parameters and Dialing Translation Table. Also, setting the Dialing Translation Parameters makes the task of setting up a Dialing Translation Table less complex.

To set the Dialing Translation Parameters:

1. Press    .

Log:  
QUIT REPLY OK

2. Enter the System Coordinator Mailbox number and password and press OK.

Admin  
MBOX AA OTHR

3. Press  .

Dialing  
PARM TABLE QUIT

4. Press PARM. If Centrex is installed on your Norstar system, QUIT is replaced by NEXT.

- |   |  |
|---|--|
| <pre>L9 dst ac: none CHNG      NEXT</pre> | 5. Press <u>CHNG</u> .   |
| <pre>L9 dst ac: RETRY     OK</pre>        | 6. Enter the long distance access code and press <u>OK</u> .                   |
| <pre>L9 dst ac: xx CHNG      NEXT</pre>   | 7. Press <u>NEXT</u> to continue. xx represents the long distance access code. |
| <pre>Area code: none CHNG      NEXT</pre> | 8. Press <u>CHNG</u> .   |
| <pre>Area code: RETRY     OK</pre>        | 9. Enter the area code and press <u>OK</u> .                                   |
| <pre>Area code: xxx CHNG      NEXT</pre>  | 10. Press <u>NEXT</u> to continue. xxx represents the area code.               |
| <pre>Access cd: none CHNG      NEXT</pre> | 11. Press <u>CHNG</u> .  |
| <pre>Access cd: RETRY     OK</pre>        | 12. Enter the access code and press <u>OK</u> .                                |
| <pre>Access cd:xx CHNG      NEXT</pre>    | 13. Press <u>NEXT</u> to continue. xx represents the access code.              |
| <pre>Reply trans:N CHNG      OK</pre>     | 14. Press <u>CHNG</u> to set the reply translation to Y (yes).                 |
| <pre>Reply trans:Y CHNG      OK</pre>     | 15. Press <u>OK</u> .  |
|   | 16. Press <u>Ris</u> to end this programming session.                          |

## Dialing Translation Table Administration

The System Coordinator is responsible for the creation and maintenance of the Dialing Translation Table. When using the Fax-on-demand two-call method, you **must** set up the Dialing Translation Table.

### Setting up a Dialing Translation Table

To set up a Dialing Translation Table, you must enter an Input value and an Output value for each entry. The Input value is the number that Norstar Voice Mail will look up in the Dialing Translation Table. After the corresponding entry has been matched, the Output value is substituted for the Input value. The resulting number is ready to dial on the local network. Refer to the Dialing Translation Table examples earlier in this chapter.

To set up a Dialing Translation Table:

1. Press    .
2. Enter the System Coordinator Mailbox number and password and press OK.
 

Log:  
 QUIT RETRY OK
3. Press  .
 

Admin  
 MBOX AA OTHR
4. Press TABLE. If Centrex is installed on your Norstar system, QUIT is replaced by NEXT.
 

Dialing  
 PARM TABLE QUIT
5. Press ADD.
 

Dial table  
ADD CHNG QUIT
6. Enter the Input value and press OK to accept the Input value. The Input value can be a maximum of 14 digits.
 

In:  
 RETRY OK
7. Enter the Output value and press OK to accept the value. The Output value can be a maximum of 15 digits.
 

Out:  
 RETRY OK
8. You must repeat steps 5 through 7 to add each entry to the Dialing Translation Table.
 

Dial table  
ADD CHNG QUIT
9. Press  to end this programming session.

## Reviewing the entries in the Dialing Translation Table

You can review or check the entries in your Dialing Translation Table at anytime.

To review your Dialing Translation Table entries:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press  .

```
Dialing
PARM  TABLE  QUIT
```

4. Press TABLE. If Centrex is installed on your Norstar system, QUIT is replaced by NEXT.

```
Dial table
ADD  CHNG  QUIT
```

5. Press CHNG.

```
inval*  outval*
NEXT  OTHR
```

6. Press NEXT to view the next entry in the Dialing Translation Table.

**Note:** The display shows 16 characters. If the total number of Input and Output values equals more than 16 digits a VIEW softkey will appear on the left side of the display. After you have pressed VIEW to view the digits furthest to the right, the softkey changes to <VIEW. Press the <VIEW softkey to view the digits on the left again. The inval\* outval\* is an example of a Table entry. The \* character shown after a value signifies any digits in the telephone number remaining to be dialed. Norstar Voice Mail automatically adds the \* character after every Input and Output value.

```
inval*  outval*
NEXT  OTHR
```

7. Continue pressing NEXT to view all the entries in the Dialing Translation Table.

8. Press  to end this programming session.

## Finding an entry in the Dialing Translation Table

For convenience, the System Coordinator can locate a specific entry in the Dialing Translation Table. The Input value must be entered in order to find the entry.

To find a specific entry in the Dialing Translation Table:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press  .

```
Dialing
PARM  TABLE  QUIT
```

4. Press TABLE. If Centrex is installed on your Norstar system, QUIT is replaced by NEXT.

```
Dial table
ADD  CHNG  QUIT
```

5. Press CHNG.

```
inval*  outval*
NEXT  OTHR
```

6. Press OTHR.  
inval\* outval\* is an example of a Table entry.

```
inval*  outval*
CHNG  DEL  FIND
```

7. Press FIND.

```
In:
RETRY  OK
```

8. Enter the Input value of the entry you wish to find and press OK.

```
inval*  outval*
NEXT  OTHR
```

9. Repeat steps 6 through 8 to find other entries in the Dialing Translation Table.

**Note:** The inval\* outval\* is an example of a Table entry. The \* character shown after a value signifies any digits in the telephone number remaining to be dialed. Norstar Voice Mail automatically adds the \* character after every Input and Output value.

10. Press  to end this programming session.



## Changing an entry in the Dialing Translation Table

After a Dialing Translation Table has been built, you can change the Output value of an entry at any time. To locate the entry that you wish to change, refer to ["Reviewing the entries in the Dialing Translation Table"](#) on page 63 or ["Finding an entry in the Dialing Translation Table"](#) on page 64.

**Note:** You cannot change the Input value of an entry. The entry must be deleted and a new entry must be created with new Input and Output values. Refer to ["Deleting a Dialing Translation Table entry"](#) on page 66.

To change an entry in the Dialing Translation Table:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA  OTHR
```

3. Press  .

```
Dialing
PARM  TABLE  QUIT
```

4. Press TABLE. If Centrex is installed on your Norstar system, QUIT is replaced by NEXT.

```
Dial table
ADD  CHNG  QUIT
```

5. Press CHNG.

```
inval*  outval*
NEXT  OTHR
```

6. Press OTHR. inval\* outval\* is an example of a Table entry. The \* character shown after a value signifies any digits in the telephone number remaining to be dialed. Norstar Voice Mail automatically adds the \* character after every Input and Output value.

```
inval*  outval*
CHNG  DEL  FIND
```

7. Press CHNG.

```
Out:
RETRY  OK
```

8. Enter the new Output value and press OK.

```
inval*  outval*
NEXT  OTHR
```

9. Repeat steps 6 through 8 to change any other entries in the Dialing Translation Table.

10. Press  to end this programming session.

## Deleting a Dialing Translation Table entry

The System Coordinator can delete an entry in the Dialing Translation Table at any time. To locate the entry that you wish to delete, refer to "[Reviewing the entries in the Dialing Translation Table](#)" on page 63 or "[Finding an entry in the Dialing Translation Table](#)" on page 64.

To delete an entry in the Dialing Translation Table:

1. Press    .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press **OK**.

```
Admin
MBOX  AA  OTHR
```

3. Press  .

```
Dialing
PARM  TABLE  QUIT
```

4. Press **TABLE**. If Centrex is installed on your Norstar system, **QUIT** is replaced by **NEXT**.

```
Dial table
ADD  CHNG  QUIT
```

5. Press **CHNG**.

```
inval*  outval*
NEXT  OTHR
```

6. Press **OTHR**. The **inval\*** **outval\*** is an example of a Table entry. The \* character shown after a value signifies any digits in the telephone number remaining to be dialed. Norstar Voice Mail automatically adds the \* character after every Input and Output value

```
inval*  outval*
CHNG  DEL  FIND
```

7. Press **DEL**.

```
Deleted
```

8. This transient display shows **Deleted** and then the display changes to show the next entry in the table:

```
inval2*  outval2*
NEXT  OTHR
```

9. Repeat steps 6 through 8 for every entry you want to delete.

The **inval2\*** **outval2\*** is an example of the next Dialing Translation Table entry.

10. Press  to end this programming session.

## Technician Created Dialing Translation Table

In some instances the Dialing Translation Table can be very large and essentially the same for all Norstar Voice Mail systems in the same calling area. A Dialing Translation Table can be easily created using a basic text editor program on your PC. After the ASCII file has been created and saved to a floppy disk, the technician can then load it onto the Norstar Voice Mail system. The disk can then be kept and used to install the Dialing Translation Table on other Norstar Voice Mail systems in the same calling area.

### Creating the Dialing Translation Table file

The Technician Created Dialing Translation Table must conform to the following rules:

1. Only one Dialing Translation Table entry per line. A Dialing Translation Table entry consists of one Input value and one Output value.
2. No blank lines in the Dialing Translation Table.
3. The Input value is entered first, followed by the Output value. The Input value must be separated from the Output value by one or more spaces. A tab can be used in place of a space.
4. A null Input value must be represented by a single hyphen ( - ).
5. A null Output value must be represented by a single hyphen ( - ) .
6. An Output value of a restricted DN must be represented by a ( # ) .
7. No extra characters can be added to either the Input or the Output value. In particular, no \* should be added after the Input or Output value. After the Dialing Translation Table has been loaded on the system, the \* is added automatically after each Input and Output value.
8. Each Input entry must be in ascending numerical order, but longer strings must appear before shorter more generic sub-strings. All null Input values ( - ) must appear at the end of the Dialing Translation Table. Refer to the table ["Sample Dialing Translation Table"](#) on page 58 for examples of how to set up the Dialing Translation Table.
9. The Dialing Translation Table must be saved as: **dial.20**.

**Note:** The above rules must be followed to ensure the Dialing Translation Table will function properly.

An example of a Dialing Translation Table created using a basic text editor.

#### Technician Created Dialing Translation Table

INPUT	OUTPUT	Explanation
011	011	First entry in the Dialing Translation Table.
416	-	The Input value is 416 and the Output value is null.
905206	905206	These specific 905 telephone exchanges appear before the more generic 905 entry.
90527	90527	
905	1905	The generic 905 sub-string must appear after the longer more specific 905 strings.
9011	#	9011 is a restricted DN.
-	1	The Input value is null and the Output value is 1.

## Installing the Dialing Translation Table onto the Norstar Voice Mail System

There are four distinct steps for installing the Dialing Translation Table file onto the Norstar Voice Mail system.

- Create a DOS system disk.
- Create an Autoexec.bat file.
- Load the Dialing Translation Table file (**dial.20**) and the Autoexec.bat file onto the DOS system disk.
- Load the Dialing Translation Table file onto the Norstar Voice Mail system.

### Creating a DOS system disk

A DOS system disk is a floppy disk that has system files copied onto it. This type of disk is required to automatically load the dialing translation table file onto the Norstar Voice Mail system.

To create a DOS system disk:

1. Insert a blank 3.5" disk into the floppy disk drive of a DOS compatible computer.
2. Ensure the DOS prompt is on the computer screen.
3. Type **Format a: /s** and follow the instructions shown on the screen.

**Note:** The default name for the floppy disk drive is **a:**. However, on computers with two disk drives, the 3.5" drive may be named **b:**. If the drive is named **b:**, replace **a:** with **b:** in the above command. If you are unsure of the name of the 3.5" floppy disk drive, check the user manuals for your computer.

## Creating an Autoexec.bat file

The Autoexec.bat file is a file that contains commands a computer automatically executes when it starts up. In the following steps you are creating a Autoexec.bat file that automatically loads the Dialing Translation Table file into the proper location on the Norstar Voice Mail system.

To create the Autoexec.bat file:

1. Open the text editor program you used to create the Dialing Translation Table file.
2. Create a new document.
3. Type **copy a:\dial.20 c:\st\dial.20**

**Note:** This is the only text that should appear in the file.

4. Save the file as **autoexec.bat**

**Note:** The file must be named exactly as shown above. Do not save this file into the root directory (C:\) of your computer or you will destroy the existing Autoexec.bat file.

## Loading the files onto the DOS system disk

To load the files onto the DOS system disk:

1. Insert the DOS system disk that you created earlier into the floppy disk drive of your computer.
2. Use the Change Directory command (CD) to move to the directory where the Dialing Translation Table file is stored.
3. Type **copy dial.20 a:\dial.20** to load the Dialing Translation Table file onto the DOS system disk.
4. Use the Change Directory command (CD) to move to the directory where the Autoexec.bat file you created is stored.
5. Type **copy autoexec.bat a:\autoexec.bat** to load the autoexec.bat file onto the DOS system disk.

## Loading the Dialing Translation Table file onto the Norstar Voice Mail system

To load the Dialing Translation Table file onto the Norstar Voice Mail system you must shut down Norstar Voice Mail and then reboot the system using the DOS system disk you created. A Norstar two-line telephone is required to perform the following steps.

To load the Dialing Translation Table file:

1. Press    .

```

Password
RETRY
  
```

2. Enter the default password        (ACCESS2) and press OK.

```

ACCESS Server
BACK  NEXT  ADMIN
  
```

3. Press NEXT.

```

System shutdown
BACK  NEXT  SHOW
  
```

4. Press SHOW.

```

Shutdown type
QUIT  NEXT  GRACE
  
```

5. Press GRACE.

```

Shutdown Graceful
YES   NO
  
```

6. Press YES.

**Note:** The Norstar Voice Mail system issues a series of tones in descending pitch when the shutdown is complete. Wait for the tones before you unplug the NAM.

7. Unplug the AC power to the NAM.
8. Open the front cover of the NAM to access the floppy disk drive.
9. Insert the DOS system disk you copied the Dialing Translation Table file onto.
10. Plug in the NAM.
11. Wait until the light on the floppy disk drive goes out and then unplug the NAM and remove the DOS system disk.
12. Close the front cover of the NAM.

13. Plug in the NAM and wait until the self-diagnostics are completed. This will take approximately 12 minutes.
14. After Norstar Voice Mail has been rebooted, verify the Dialing Translation Table has been loaded by printing the Dialing Translation Report.

For information about printing reports, refer to the *Norstar Voice Mail Set Up and Operation Guide*.

---

# Appendix C: Technical content of a loadable .PCX file

## Introduction

Norstar Voice Mail FAX supports Paintbrush for Windows 95 .PCX files (black & white only). If you are using another application, ensure that the file format is compatible with the information shown in the following table. The following table shows the required content of the .PCX file header.

### Required content of the .PCX file header

Offset	Length	Description
0	1	.PCX identification. Must be 0x0A.
1	1	Version information. A value of 2 is suggested, but anything higher is acceptable.
2	1	Encoding method. Must be 1.
3	1	Bits per pixels. Must be 1.
4	2	X position of upper left corner. Usually 0.
6	2	Y position of upper left corner. Usually 0.
8	2	X position of the bottom right corner. 1728 is the maximum. The difference between this field and the upper left corner X position is the width of the bitmap. The number must be a multiple of 8.
10	2	Y position of the bottom right corner. 2200 is the recommended maximum.
12	2	Ignored in fax transmission mode.
14	2	Ignored in fax transmission mode.
16	48	Ignored in fax transmission mode (palette information).
64	1	Reserved. Must be 0.
65	1	Number of color planes. Must be 1 in fax transmission mode.
66	2	Horizontal line width in bytes, equal to: $(X_{right} - X_{left}) \div 8$
68	60	Reserved. Must be 0.

**Note:** For more information about the file header and your software application, contact your PC software retailer.



---

# Glossary

## **Administration**

The tasks involved in setting up and maintaining the Norstar Voice Mail Mailboxes, greetings, Custom Call Routing (CCR), and set up configuration.

## **Analog Terminal Adapter (ATA)**

A Norstar product that allows for the connection of an analog device, such as a single-line telephone or a facsimile machine, to a Norstar KSU.

## **Automated Attendant**

The Norstar Voice Mail answering service that answers incoming calls with a Company Greeting, plays a list of Norstar Voice Mail options to a caller, and performs call routing functions in response to a caller's selections.

## **Call Method**

The call method is a parameter defined for a Fax-on-demand Mailbox. This parameter determines how a Fax message is sent to the caller. There are two call methods: one-call and two-call. In the one-call method, the Fax message is sent to the caller in the original call. In the two-call method, the Fax message is sent in a second call that Norstar Voice Mail makes to a number specified by the caller.

## **Call Path**

The route an incoming call takes along a CCR Tree. Each Call Path provides the caller with options and access to Points.

## **Central Office**

The telephone company facility where customer telephone lines are joined to switching equipment for connecting local and long distance calls.

## **Class of Service**

A predetermined number designation that specifies the Norstar Voice Mail options for a mailbox.

## **Company Directory**

An internal voice list that contains the names of users with initialized mailboxes who have been designated to appear in the directory.

## **Configuration**

The tasks involved in setting up the different parameters of Norstar Voice Mail. For example, configuring the telephone lines answered by Norstar Voice Mail. Also, see **Administration**.

**Conventions**

The way certain information has been described. For example, using underlined text to represent second-line display prompt information.

**Custom Call Routing (CCR) Tree**

Call Paths that allow users to select options to direct their own calls.

**Default**

The parameters that are preset within the Norstar Voice Mail module.

**Destination**

In CCR, a destination is where a call is transferred from an Information Message Point, a Leave Message Point, or a Fax Point. There are three Destination Types: Home Menu, Previous Menu and disconnecting the caller.

**Dialing Translation**

A Norstar Voice Mail feature that converts the digits to be dialed into acceptable call routing information. Dialing Translation is required to use the two call method with Fax-on-demand mailboxes.

**Digital Fax Card (DFC)**

The DFC is an expansion card that provides Fax capability to Norstar Voice Mail.

**Digital Voice Card (DVC)**

The DVC is an expansion card that converts speech into a form that can be stored on and retrieved from the hard disk. The DVC also connects the Norstar KSU to Norstar Voice Mail.

**Display**

A one or two-line screen on a Norstar telephone that shows Norstar Voice Mail commands and options.

**Display buttons**

The three buttons that appear below a Norstar two-line display. When pressed, these buttons select the specified Norstar Voice Mail option.

**Display options**

The choices available to a user that appear on the Norstar two-line display. Options appearing on the display can be selected using the display or dialpad buttons.

**Extensions**

A two to seven-digit number that is used to reach a designated telephone on a Norstar system.

**Fax Mail**

Fax Mail allows a caller to leave a Fax message in a Personal Mailbox. The Fax messages can later be retrieved by the owner of the mailbox and printed on a fax machine.

**Fax-on-demand Mailbox**

A Fax-on-demand Mailbox is a Norstar Voice Mail mailbox that allows a caller to retrieve Fax messages you have stored in Norstar Voice Mail.

**Fax Overflow Mailbox**

The Fax Overflow Mailbox is a Norstar Voice Mail mailbox for your fax machine. If the fax machine cannot answer an incoming fax call, Norstar Voice Mail answers the call and stores the Fax messages in the Fax Overflow Mailbox. Later, when the fax machine is ready to print, Norstar Voice Mail will send the stored Fax messages to the fax machine.

**Fax Point**

A point along a CCR Tree call Path where the caller can retrieve a Fax message from a Fax-on-demand Mailbox.

**Fax telephone**

A fax machine that can also be used to make standard telephone calls.

**Feature Code**

A unique three-digit code that is used to access Norstar Voice Mail Features and options.

**General Delivery Mailbox**

One of the two Special Mailboxes used to collect messages for individuals in a company who have not been assigned Personal Mailboxes. The other Special Mailbox is the System Coordinator Mailbox.

**Greetings**

Fax-on-demand Mailbox Greetings can be recorded in the Primary and Alternate Languages. These greetings provide a list or description of faxes available from the Fax-on-demand Mailbox.

**Home Point**

The Home Point is the first point a caller goes to on a CCR Tree.

**Home Fax Point**

In CCR, a Home Fax Point is a Home Point where the caller can retrieve Fax messages from a Fax-on-demand Mailbox.

**Initialize mailbox**

Preparing a mailbox to receive messages, which includes changing a mailbox default password and recording a Company Directory name.

**Initializing Norstar Voice Mail**

Preparing the Norstar Voice Mail settings during system installation. Settings include mailbox number length, language preference, and intercom number length.

**Intercom number length**

The number of digits in a Norstar extension and a Norstar Voice Mail Mailbox number. The intercom number length ranges from two to seven digits.

**Language**

Norstar Voice Mail software is available in either English and French or English and Spanish. When the Primary Language is English, the Alternate Language is either French or Spanish.

**Mailbox**

A storage place for messages on the Norstar Voice Mail system.

**Mailbox number length**

The number of digits allowed in a mailbox number. The mailbox number length ranges from two to seven digits.

**Mailbox Overrides**

The two Mailbox Overrides are optional parameters in addition to the Class of Service values. The Mailbox Overrides are: Include in Company Directory and Message Waiting Notification.

**Non voice-introduced Fax message**

A Fax message without an introductory message that is left in a mailbox.

**Norstar Voice Mail FAX Programming Record**

The Norstar document where selected FAX programming options are written down.

**Off-premise Message Notification**

A Norstar Voice Mail feature you can program to call you at any telephone number, extension, or pager to let you know that there is a voice or Fax message for you.

**Option**

A Norstar Voice Mail choice that is given to a user through voice or display prompts.

**PBX**

A PBX (Private Branch eXchange) is the electronic equipment which controls the operation of a telephone system and provides many call control features.

**Password**

A four to eight digit number that is entered using the dialpad. A password is used to open mailboxes or perform configuration tasks.

**Path number**

An identification number assigned to a Path on each CCR Tree. The number represents the sequence of digits that callers enter to route themselves along the call path.

**Point**

An option along the call Path of a CCR Tree. A Point can be the Home Menu, a Menu, an Information Message, Personal Mailbox, a Fax-on-demand Mailbox or an extension.

**Registering mailboxes**

A System Coordinator task for the addition of mailboxes to Norstar Voice Mail using the Administration Feature Code.

**Reports**

The Norstar Voice Mail Reports are used to view information such as Norstar Voice Mail programming, amount of available message storage time and CCR programming and administration.

**Resetting passwords**

A System Coordinator task that changes a mailbox password from its current setting back to the Norstar Voice Mail default setting 0000 (four zeros).

**Special Mailboxes**

The two mailboxes used by the System Coordinator and designated Norstar Voice Mail Operator. The two Special Mailboxes are: System Coordinator and General Delivery.

**System Coordinator**

The person responsible for configuring, updating, and maintaining the Norstar Voice Mail module.

**System Coordinator Mailbox**

One of the two Special Mailboxes. This mailbox is used by the System Coordinator for sending Broadcast Messages and is also the System Coordinator's Personal Mailbox. The other Special Mailbox is the General Delivery Mailbox.

**Tone dial telephone**

A push button telephone that emits DTMF tones.

**Voice introduced Fax message**

A Fax message that is left in a mailbox with an introductory message.

**Voice prompts**

The prerecorded voice instructions that are played when accessing the different Norstar Voice Mail Features and options. Voice prompts also enable a caller to proceed along the call Path of a CCR Tree.

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